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**Health & Science** 

# Physical activity may help kids do better in school, studies say

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There's little dispute that physical activity is good for kids: It not only helps develop muscles and fend off obesity, it also offers opportunities to socialize and learn new skills. Getting kids active is a key component of first lady Michelle Obama's Let's Move campaign, which says "children need 60 minutes of play with moderate to vigorous activity every day to grow up to a healthy weight."

Can physical activity also help improve a child's academic performance?

"This is a very consistent finding, that physically fit kids do better in school," says <u>James Sallis</u>, a professor of family and preventive medicine at the University of California at San Diego, who has long worked on preventing childhood obesity.

A recent report from the Institute of Medicine asserts that "children who are more active show greater attention, have faster cognitive processing speed, and perform better on standardized academic tests than children who are less active."

A strong body of research supports the link between physical fitness and test scores. In one study, for example, nearly 2,000 California schoolchildren who were outside a "healthy fitness zone" — a 12-year-old who took longer than 12 minutes to run a mile would be outside that zone — scored lower on state standardized tests than those who were more fit.

A <u>similar study in Nebraska</u> assessed the fitness of schoolchildren in a shuttle run, in which kids run a back-and-forth lap in a set time. The kids who performed best on this test scored higher on both the math and reading portions of state standardized exams.

While compelling, such evidence does not prove that fitness is the cause of higher test scores. Fitness in kids also tends to correlate with higher socioeconomic status, which is strongly predictive of academic achievement.

The more important question is: Does adding opportunities for physical activity during the school day boosts kids' capacity to learn?

The research on this question is still in its early stages, but the evidence is beginning to suggest that the answer is yes.

One recent study conducted in Georgia invited 111 inactive, overweight kids, age 7 to 11, to participate in an after-school exercise program, during which they were active for at least 20 minutes. Another 60 kids, also overweight, were wait-listed and served as controls. After 13 weeks, the kids in the exercise program performed better than the controls on tests of mental tasks such as planning, organizing and strategizing, as well as on standardized math tests.

In Kansas, an intervention designed to combat obesity also found a link between physical activity and learning. In the study, teachers at 14 elementary schools were trained to teach lessons using movement; for example, students might hop or run to letters on the floor to spell words or might solve 2+2=4 by moving their bodies rather than blocks. Ten other schools served as controls; their teachers received no training.

The added activity had positive effects on body weight. In the schools where activity was added, 21.8 percent of children who were at risk for obesity moved into the normal range for body mass index (a measure of weight that takes height into account); in the control schools, 16.8 percent of at-risk kids moved to normal.

Study co-author <u>Joseph Donnelly</u>, director of the Center for Physical Activity and Weight Management at the University of Kansas in Lawrence, says he added a measure of academic performance almost as an afterthought, "to show, at minimum, that we were not disrupting the classroom," he says.

What happened surprised the researchers: Scores on a 30-minute standardized test of reading, writing and math were higher in the schools that used active lessons than in the schools that didn't.

Though it is too early to draw broad conclusions from these studies, the evidence is mounting that physical activity is even more beneficial than previously thought. How this translates into children's lives — where video games and other sedentary activities are a constant allure — is a challenge parents and schools face together.

One promising idea, called <u>SPARK</u>, was developed by Sallis in 1989. It includes a curriculum of activities, available for a fee, that use simple equipment and are led by parents, who conduct before-school and recess-time activities, and by teachers, who incorporate "brain breaks" during classroom time.

Another is a 45-minute before-school program that is offered in 18 District public schools. Funded by Reebok, <u>BOKS</u> trains a teacher or parent in how to lead exercises and games to get kids moving.

Sports and lessons in dance or karate are other ways kids get physical activity. But Sallis advises parents to check the quality of such organized activities: The kids "should be active at least 50 percent of the time. A lot of programs don't meet that goal."

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